

Claims

What is claimed is:

1. A method of providing Internet services, comprising the steps of:
 - (a) receiving Internet data directed to an end-user;
 - 5 (b) transmitting said data to said end-user via a modem connected to a radio-transmission network.
2. The method of claim 1, wherein said step of transmitting does not adversely affect radio signals transmitted over said radio-transmission network.
- 10 3. A method of providing Internet-related services, comprising the steps of:
 - (a) receiving Internet data directed to a first end-user;
 - (b) determining a level of network service to which the first end-user is entitled;
 - 15 (c) if said first end-user is entitled to high-speed network service, routing said data to said first end-user via high-speed lines; and
 - (d) if said first end-user is only entitled to low-speed network service, routing said data to said first end-user via modem-to-modem service.
- 20 4. A method as in claim 3, wherein said modem-to-modem service is over radio-transmission lines.
5. A method as in claim 3, wherein a portion of said high-speed network service takes place over fibre-optic lines, and a portion takes place over radio-transmission lines.
- 25 6. A method as in claim 5, wherein said high-speed network service is performed in a frequency range that does not significantly interfere with radio broadcasts over said radio-transmission lines.
- 30 7. A method as in claim 3, wherein if said first end-user is not entitled to high-speed service, but in said first end-user's building there is a second end-user who is entitled

to high-speed service, then said data is routed via high-speed lines to said first end-user's building, then routed to said first end-user via modem-to-modem service.

8. A method as in claim 7, wherein said modem-to-modem service is over radio-
5 transmission lines.

9. A method as in claim 8, wherein said modem-to-modem service is performed in a
frequency range that does not significantly interfere with radio broadcasts over said
radio-transmission lines.

10. A system for delivery of Internet-related services, comprising:

(a) one or more central switching and routing units;

(b) one or more area switching and routing units, each of which is connected to at
least one central switching and routing unit;

(c) a first set of low-speed modem units, each of which is connected to at least one
15 area switching and routing unit; and

(d) a second set of low-speed modem units, each of which is connected to one or more
low-speed modem units in said first set of low-speed modem units via a copper-wire network,
and each of which is connected to an end-user's computer.

11. A system as in claim 10, wherein at least one of said one or more area switching and
routing units is connected to at least one central switching and routing unit by fibre-
optic cable.

12. A system as in claim 10, wherein said first set of low-speed modems comprises at
least one 10Base-S switch.

13. A system as in claim 10, wherein said second set of low-speed modems comprises at
least one 10Base-S switch.

14. A system as in claim 10, wherein said copper-wire network is a radio-transmission
grid.

15. A system for delivery of Internet-related services, comprising:
- (a) one or more central switching and routing units;
 - (b) one or more area switching and routing units, each of which is connected to at least one central switching and routing unit;
 - (c) one or more local switching and routing units, each of which is connected to at least one area switching and routing unit, wherein each local switching and routing unit is connected to one or more end-user's computers via copper-wire lines.

16. A system as in claim 15, wherein said copper-wire lines are radio-transmission lines.

17. A system as in claim 15, wherein at least one of said one or more area switching and routing units is connected to at least one central switching and routing unit by fibre-optic cable.

18. A system as in claim 15, wherein at least one of said one or more local switching and routing units is connected to at least one area switching and routing unit by fibre-optic cable.

19. A system as in claim 15, wherein at least one of said one or more local switching and routing units communicates with one or more end-user's computers using a 10Base-S protocol.

20. A system for delivery of Internet-related services, comprising:

- (a) one or more central switching and routing units;
- (b) one or more area switching and routing units, each of which is connected to at least one central switching and routing unit;
- (c) one or more local switching and routing units, each of which is connected to at least one area switching and routing unit;
- (d) a first set of low-speed modem units, each of which is connected to at least one area switching and routing unit;

(e) a second set of low-speed modem units, each of which is connected to an end-user's computer; and

(f) a set of high-speed interface card units, each of which is connected to a local switching and routing unit and to an end-user's computer.

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21. A system as in claim 20, wherein said first set of low-speed modem units comprises at least one 10Base-S switch.

22. A system as in claim 20, wherein said second set of low-speed modem units comprises at least one 10Base-S switch.

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23. A system as in claim 20, wherein said set of high-speed interface card units comprises at least one 10Base-S switch.

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